

THE EFFECTIVENESS OF MODULAR SCHEDULING ON
A BUSINESS EDUCATION PROGRAM

A Field Report
Presented to
The School of Graduate Studies
Drake University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education

by
Michael J. Coury

May 1971

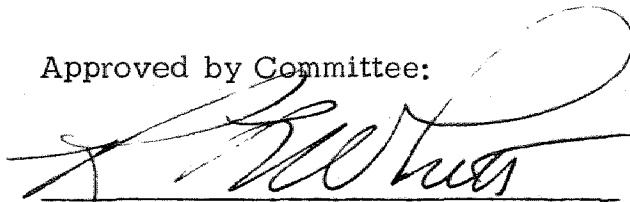
1971
C837

THE EFFECTIVENESS OF MODULAR SCHEDULING ON
A BUSINESS EDUCATION PROGRAM

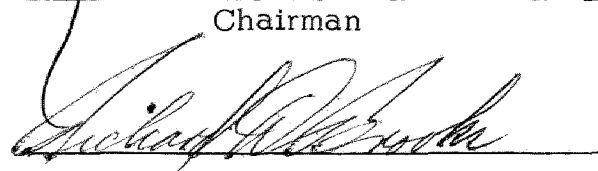
by

Michael J. Coury

Approved by Committee:



Chairman




Dean of the School of Graduate Studies

340347

TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND PROCEDURE	1
The Problem	1
Procedure	2
II. RELATED LITERATURE.	5
III. DESIGN OF THE STUDY AND OPINIONNAIRE RESULTS	9
Design of Study	9
Opinionnaire Results	10
IV. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS. . . .	29
Summary.	29
Conclusions	29
Recommendations	30
BIBLIOGRAPHY	31
APPENDIX	37

LIST OF TABLES

TABLE	PAGE
I. Student Responses to Questions 1 and 2 by Per Cent of Boys, Girls, and Total	11
II. Student Responses to Questions 3 and 4 by Per Cent of Boys, Girls, and Total	12
III. Student Responses to Question 5 by Per Cent of Boys, Girls, and Total	13
IV. Student Responses to Question 6 by Per Cent of Boys, Girls, and Total	14
V. Student Responses to Question 7 by Per Cent of Boys, Girls, and Total	15
VI. Student Responses to Question 8 by Per Cent of Boys, Girls, and Total	15
VII. Student Responses to Question 9 by Per Cent of Boys, Girls, and Total	16
VIII. Student Responses to Question 10 by Per Cent of Boys, Girls, and Total	17
IX. Student Responses to Question 11 by Per Cent of Boys, Girls, and Total	18
X. Student Responses to Question 12 by Per Cent of Boys, Girls, and Total	19
XI. Student Responses to Question 13 by Per Cent of Boys, Girls, Total, and Total Without Seniors	20
XII. Student Responses to Question 14 by Per Cent of Boys, Girls, Total, and Total Without Seniors	21
XIII. Student Listing of Major Disadvantages of Modular Scheduling by Number and Per Cent of Total	22
XIV. Student Recommendations for Improving Modular Sched- uling by Number and Per Cent of Total	24

CHAPTER I

THE PROBLEM AND PROCEDURE

The Problem

In this ever-changing world, man is always seeking to improve his lot through some form of change. Since the launching of Sputnik in 1958, the American educational system has been under pressure to improve itself.

As a result of desires to change school programs consistent with the changing needs of society, many new experimental programs have been initiated. Some innovative ideas centered around teaching machines, programmed learning, and multiple-channel instruction.¹

The traditional schedules are not adequate for most programs of team-teaching, individualized study, and large and small group instruction. Schedules must be made to fit the new programs and procedures.

Many educators feel that flexible scheduling can make better use of the professional competencies of teachers and provide learning

¹Herbert A. Tonne, "Innovation as the Solution," Journal of Business Education, (January, 1967), pp. 136-37.

experiences for students.¹

This study is designed to answer certain, but not all, of the questions about the merits of modular scheduling.

Procedure

The 1969-1970 school year was the first year of modular scheduling for Assumption High School, a Roman Catholic school in Davenport, Iowa. The school had an enrollment of about 950 students in grades nine through twelve. This study was made to test the effect of this new scheduling procedure on the business education program.

An opinionnaire was constructed by the author. The instrument was evaluated by the author's advisor and then given on a trial basis to the business teachers and a few business students.

After these steps of validation were completed, the opinionnaire was administered to all students at Assumption who were enrolled in one or more of the business courses. This device was used in early May, 1970. Since the opinionnaires were distributed in class, there was a 100 per cent return.

The students were able to note what they considered to be the advantages and disadvantages of modular scheduling. They also had

¹Glenn F. Ovard, Administration of the Changing Secondary School (New York: The Macmillan Company, 1966), p. 175.

the opportunity to compare and contrast modular scheduling with the traditional scheduling of the past.

A structured interview schedule, designed to elicit information concerning the advantages and disadvantages of modular scheduling, was designed by the author. The business teachers and the two assistant principals of Assumption High School were given these interviews in early May, 1970. In this interview they were asked to relate the teaching and administrative points of view concerning modular scheduling.

There are two populations represented in this study. One of the populations consists of typical business students in a midwestern, middle-class, parochial, urban high school.

The other population consists of typical business teachers and administrators in a midwestern, middle-class, parochial, urban high school.

The student sample chosen for the study consisted of those students at Assumption High School who were enrolled in at least one business course during the 1969-1970 school year.

The teacher-administrator sample consisted of those teachers at Assumption High School who were members of the Business Education Department, as well as the two assistant principals of Assumption High School.

An analysis of the study was done by the researcher and an evaluation was made to determine what effect modular scheduling had on

the business education program.

The answers in the opinionnaire were tabulated and presented in tabular form. The responses from the structured interviews were condensed to give a composite picture of the teacher and administrator point of view.

CHAPTER II

RELATED LITERATURE

The area of modular scheduling is relatively new to the American educational system. The Stanford University Experimental School has served as the leader in this area.¹

The concept of modular scheduling is based upon the premise that all students do not learn at the same rate and that all subjects do not require the same amount of time to teach.²

Consequently, the time spent in school is divided into units of time called modules. The instructor then determines how many modules his classes will meet.

When properly taught, each subject will include four basic types of instruction: (1) large groups; (2) small groups; (3) independent and individualized study; and (4) special laboratory facilities.³ The

¹Dwight W. Allen, *Innovations in Education: Modular Scheduling*, "Stanford University Experimental School (films).

²Bert Masterson and Wally Clark, "A Flexible Approach to Office Education--Modular Scheduling!" Balance Sheet (October, 1969), p. 68.

³Robert N. Bush and Dwight W. Allen, *Flexible Scheduling for What?* " Journal of Secondary Education (October, 1969), p. 351.

arrangement of mods in each category of instruction is left to the discretion of the teacher.

Some people contend that you cannot teach business subjects on an independent basis.¹ However, this point is repudiated by Donna Holt, Business Supervisor at the University of Missouri (Columbia) Laboratory School.

Holt found that there was a great deal of duplication in two different courses--Consumer Economics and Business Law. These courses were combined into one. The class would meet as a unit when films were shown, for guest speakers, seminars, and for examinations. The rest of the time was spent in independent study.

The usual comment after completing the course is, "This should be a required course as I have never taken one that is more practical."²

Another change in this business department was in the accounting course. The course was taught on an independent basis complete with tapes, course outlines, learning guides, and practice sets.

The student's rate of progress was determined by a few pre-set deadlines. One could not move on to the next unit unless he achieved a minimum grade of 80 on each test. He would be required to continue

¹Donna Holt, "Individualized Business Courses," School and Community (April, 1969), p. 24.

²Ibid.

studying and taking the exams until he achieved the satisfactory score.

Students liked the independence of the course and the initial results show that grades tend to be higher and progress faster than when the course was taught traditionally.¹

Another feature of this approach was that the students liked the opportunity to confer with the teacher on a one-to-one basis.²

The other business course that was taught in a new manner was typewriting. Instead of the usual 55-minute period, each class met for 25 minutes with a 25-minute lab.

Instruction was given during class time, and lab time was used for skill practice, timed writings, typing problems, etc. Under this new approach, the same amount of material was covered as under the traditional method. Now, however, the student decides how to use his lab time. Although there is no group instruction during labs, a teacher is always present to answer questions.

An appraisal of modular scheduling in the Colorado schools was made by Bert Masterson and Wally Clark. They felt that the modular concept made the most of the business education equipment and facilities. This was due in part to the amount of free time afforded each student.³

¹Ibid.

²Ibid.

³Masterson and Clark, op. cit.

In rating the success of modular scheduling programs in Colorado, it was felt that any success of the program was up to the individuals involved--student, teacher, counselor, and principal. They must assume their responsibility at all times for the program to work.¹

In yet another study of the flexibility of modular scheduling it was felt that a teacher having definite office hours could spend more time helping students and in preparing for class.²

As is the case with all new educational schemes, there are certain disadvantages to be noted. Among them are a tendency to take too many classes, confusion about class schedules, and inability of many to accept their responsibilities.³

In conclusion, flexible scheduling offers many advantages to the student and the teacher of business subjects. Any disadvantages that exist in the system seem to be far outweighed by the advantages of it.⁴

¹Ibid. , p. 70.

²Leroy R. Critchfield, "Business Education in a Flexible Scheduled High School," Balance Sheet (December, 1969), p. 156.

³Masterson and Clark, op. cit. , pp. 69-70.

⁴Critchfield, op. cit. , p. 159.

CHAPTER III

DESIGN OF THE STUDY AND OPINIONNAIRE RESULTS

Design of Study

An opinionnaire was administered to the business students at Assumption High School. An early draft of this device was evaluated by the author's advisor.

Next, the opinionnaire was given on a trial basis to the business teachers at Assumption. It was also given to a few selected students in the business area. This was done to eliminate any ambiguous or unclear statements. After the students and teachers made their suggestions for improvement, the final draft of the opinionnaire was drawn up. It appears in its entirety in the Appendix.

The schedule was administered personally to all students who were enrolled in at least one business course at Assumption High School. There were definite advantages in administering the test personally. Among them, the important ones were: (1) the opportunity to explain items that are not clear; (2) the availability of respondents; (3) the economy of time and expense; and (4) complete and usable returns.

The structured interviews conducted with the business teachers and with the assistant principals were also validated. A rough outline of the points to be covered in the interviews was approved by the

author's advisor. Again, the author was assured of complete and usable returns.

Opinionnaire Results

The opinionnaire was administered to 390 students. Of the total 222 boys, only 34 had taken any business courses prior to the 1969-1970 school year. Of the 168 girls, 50 had taken some business courses prior to the 1969-1970 school year.

The students were asked to appraise their adjustment to modular scheduling at the end of their first year. Thirty-one per cent felt that they were making a "very good adjustment." However, 53% felt that they were making a "fair adjustment." Ten per cent were "just beginning to adjust," while only six per cent were "unable to adjust."

The students rated the teacher adjustments in much the same manner. Twenty-two per cent felt that their teachers were making a "very good adjustment"; 53% praised their teachers for making a "fair adjustment"; 16% felt that their teachers were "just beginning to adjust"; and only 9% felt that their teachers were "unable to adjust."

The teachers and administrators felt that everyone involved-- teachers and students--were making a "fair adjustment."

The following table shows the similarity of student responses to the first two questions in the opinionnaire.

TABLE I
STUDENT RESPONSES TO QUESTIONS 1 AND 2
BY PER CENT OF BOYS, GIRLS, AND TOTAL

		Very Good Adjustment	Fair Adjustment	Just Beginning to Adjust	Unable to Adjust
(1) On Student Adjustment	Boys	26.6	52.3	12.6	8.5
	Girls	36.3	54.2	6.5	3.0
	Total	31.0	53.0	10.0	6.0
(2) On Teacher Adjustment	Boys	22.1	49.9	16.0	12.0
	Girls	23.0	57.1	15.1	4.8
	Total	22.0	53.0	16.0	9.0

Both students and teachers felt that the contact time of students with teachers was less than under the traditional system. Seniors in particular felt that the contact time was "much less" than under the old system.

In a modular scheduling system, the student has a great deal of unscheduled time. Sixty-nine per cent of the students felt that their preparation time was at least adequate. The teacher-administrator viewpoint also regarded the students' preparation time as being adequate.

A summary of student responses to questions three and four appears on the next page in Table II.

TABLE II
STUDENT RESPONSES TO QUESTIONS 3 AND 4
BY PER CENT OF BOYS, GIRLS, AND TOTAL

		Much More Now	Slightly More Now	About the Same	Slightly Less Now	Much Less Now
(3) On Contact Time With Teachers	Boys	21.9	17.1	19.0	18.1	23.9
	Girls	8.9	16.0	24.2	26.6	24.3
	Total	16.0	17.0	21.0	22.0	24.0
(4) On Preparation Time	Boys	3.1	15.7	47.5	27.4	6.3
	Girls	4.1	16.1	51.1	23.8	5.0
	Total	4.0	16.0	49.0	25.0	6.0

As to the use of their free time, 57% of the students felt that they were using it "sometimes wisely ; sometimes wastefully." Fourteen per cent conceded that they usually wasted their free time. Student responses are shown in Table III. The teacher-administrator consensus was similar to the students' own appraisal.

TABLE III
STUDENT RESPONSES TO QUESTION 5 BY PER
CENT OF BOYS, GIRLS, AND TOTAL

		Wisely	Generally Good	Sometimes Wisely	Usually Wastefully
(5) On Use of Free Time	Boys	6.1	16.9	56.2	20.8
	Girls	12.9	23.1	58.1	4.9
	Total	9.0	20.0	57.0	14.0

With respect to open rooms, 67% of the students felt that the rooms should be "semi-quiet and unsupervised." Only one per cent felt that they should be "quiet and supervised." The teacher-administrator consensus was in favor of the rooms remaining "semi-quiet and unsupervised." The student responses are shown in Table IV.

TABLE IV
STUDENT RESPONSES TO QUESTION 6 BY PER
CENT OF BOYS, GIRLS, AND TOTAL

		Quiet, Unsuper- vised	Quiet, Super- vised	Semi- quiet, Super- vised	Semi- quiet, Unsuper- vised	Completely Unsuper- vised
(6) On Open Rooms	Boys	2.0	0.0	10.0	65.1	22.9
	Girls	3.9	1.1	12.1	67.8	15.1
	Total	3.0	1.0	10.0	67.0	19.0

One possible place for the students to spend their free time was in the business resource area. Thirty-two per cent of the students admitted using the business resource area to do only particular business assignments. Forty-five per cent held that they never used the business resource area, or do so only on rare occasions. The teacher-administrator consensus was that the students were using the area occasionally to do particular business assignments. The student responses are shown on the following page in Table V.

TABLE V
STUDENT RESPONSES TO QUESTION 7 BY PER
CENT OF BOYS, GIRLS, AND TOTAL

		For Business Homework	Occasionally for Business	Very Seldom	Never
(7) On Use of Business Resource Center	Boys	5.3	23.8	32.1	38.8
	Girls	24.1	44.1	18.9	12.9
	Total	13.0	32.0	27.0	28.0

As far as being prepared for classes, 64% of the students felt that they were at least as well prepared as in the past. The teacher-administrator viewpoint was that the students were as well prepared for class as in the past. The student responses appear below in Table VI.

TABLE VI
STUDENT RESPONSES TO QUESTION 8 BY
PER CENT OF BOYS, GIRLS, AND TOTAL

		Much Better	Slightly Better	About the Same	Slightly Less	Much Less
(8) On Class Prepara- tion	Boys	4.8	22.1	36.1	26.2	23.8
	Girls	5.0	19.9	41.2	30.2	3.7
	Total	5.0	21.0	38.0	28.0	8.0

In rating the amount of work that the students must do in school, 36% felt that they were working much harder than in previous years. Only 19% admitted that their work load was lighter than before. The assistant principals felt that the students were working harder under the new system. The teachers, however, felt that the students were not doing quite as much work. The student responses appear below in Table VII.

TABLE VII
STUDENT RESPONSES TO QUESTION 9 BY
PER CENT OF BOYS, GIRLS, AND TOTAL

		Much Harder	Slightly Harder	About the Same	Not Quite as Hard	Consider- ably Less Hard
(9) On Degree of Preparation	Boys	30.8	27.2	19.1	13.0	9.9
	Girls	43.3	26.9	17.8	10.2	1.8
	Total	36.0	27.0	18.0	12.0	7.0

With the advent of modular scheduling, the students were exposed to large group lectures, small group classes, and independent study. A solid 68% of the students favored the small group class as their favorite learning situation. The teachers and administrators agreed. Student responses are shown in Table VIII.

TABLE VIII
STUDENT RESPONSES TO QUESTION 10 BY
PER CENT OF BOYS, GIRLS, AND TOTAL

		Large Group	Small Group	Independent Study
(10) On Preference of Learning Situations	Boys	10.9	67.2	21.9
	Girls	15.6	70.1	14.3
	Total	13.0	68.0	19.0

One obvious advantage of modular scheduling is that students are able to take more than five or six courses. Sixty-one per cent of the students felt that the flexibility of the modular scheduling program had enabled them to register for business courses that they normally would not have taken. Thirty per cent felt that the new system made no difference to them. The teacher-administrator consensus was that the flexible schedule had increased the enrollment of students into the business curriculum area. Table IX shows the student responses to this question.

TABLE IX
STUDENT RESPONSES TO QUESTION 11 BY
PER CENT OF BOYS, GIRLS, AND TOTAL

		Able to Take More	No Change	Must Take Fewer
(11) On Enrolling in Business Courses	Boys	61.9	28.1	10.0
	Girls	59.2	31.9	8.9
	Total	61.0	30.0	9.0

One important criterion for judging the effect of modular scheduling is to compare the students' new grades with their grades of past years. Fifty-one per cent of the students felt that their grades were at least equivalent to the grades they had received in prior years. Thirty-three per cent believed their grades to be "slightly lower than before." Sixteen per cent held that their grades were "much lower than before." A check of the respondents showed that this last group was chiefly the same group of students who admitted that they were using their free time wastefully. Student responses to this question are shown in Table X.

TABLE X
STUDENT RESPONSES TO QUESTION 12 BY
PER CENT OF BOYS, GIRLS, AND TOTAL

		Much Higher Now	Slightly Higher Now	About the Same	Slightly Lower Now	Much Lower Now
(12)	Boys	3.8	9.4	30.1	39.2	17.5
On						
Overall	Girls	8.0	19.2	35.8	26.1	10.9
Grades						
	Total	5.0	13.0	33.0	33.0	16.0

The administration seemed to feel that there was no significant change in overall grades. The teachers felt that the overall grades were nearly the same, but that they were failing slightly more students than in previous years. This was basically due to a failure on the students' part to get their assignments completed.

When asked for their reaction to the school's decision to become involved in modular scheduling, 64% of the students revealed some satisfaction. Twenty-two per cent were uncertain as to how to react. Seven per cent were generally dissatisfied, and another seven per cent was completely dissatisfied. Seventy per cent of the people dissatisfied were seniors. The teachers and administrators revealed that they were pleased with the decision of the school to go into modular scheduling.

Table XI shows the student responses to this question. Total

percentages are given for all business students, and then for all business students excluding seniors.

TABLE XI

STUDENT RESPONSES TO QUESTION 13 BY PER CENT OF
BOYS, GIRLS, TOTAL, AND TOTAL WITHOUT SENIORS

		Fully Satis- fied	Mostly Satis- fied	Uncer- tain	Mostly Dissatis- fied	Fully Dissatis- fied
(13) On Satisfac- tion with Change to Modular Scheduling	Boys	23.1	37.2	24.0	7.9	7.8
	Girls	29.0	40.2	19.1	5.9	5.8
	Total	26.0	38.0	22.0	7.0	7.0
	Total Less					
	Seniors	30.0	41.0	21.0	6.0	2.0

In a related question, the students were asked what their reaction would be if Assumption decided to return to the traditional schedule. Sixty-five per cent of the students said their reaction would be "one of disappointment." Twenty-four per cent had no particular feelings, while only eleven per cent said their reaction would be "one of joy." If the responses of the seniors were discarded, the percentages jump to 71% showing disappointment, 22% showing no reaction, and only 7% happy to return to the old way. The teachers and administrators all expressed sadness at the possibility of returning to the traditional system. They

seemed assured that the modular scheduling system was better than the traditional system.

Table XII shows the student responses to this question. Total percentages are given for all business students, and then for all business students excluding seniors.

TABLE XII
STUDENT RESPONSES TO QUESTION 14 BY PER CENT OF
BOYS, GIRLS, TOTAL, AND TOTAL WITHOUT SENIORS

		Disappointment	No Feelings	One of Joy
(14) On Feelings About Returning to the Old Schedule	Boys	62.0	25.1	12.9
	Girls	69.2	22.0	8.8
	Total	65.0	24.0	11.0
	Total Less Seniors	71.0	22.0	7.0

The students were given the opportunity to list the things they felt were detrimental to the modular scheduling program. Table XIII on the next page shows that the students consider to be the major drawbacks of the modular scheduling program.

Sixty-two (15.7%) of the respondents felt that they were forced to take too many subjects. Some complained of being signed up for ten

and eleven different courses.

TABLE XIII
STUDENT LISTING OF MAJOR DISADVANTAGES OF MODULAR
SCHEDULING BY NUMBER AND PER CENT OF TOTAL

Disadvantages	Number	Per Cent
Students take too many subjects	62	15.7
Teachers think theirs is the only class	43	11.0
Rowdy students	41	10.5
Poor teachers	34	8.7
Teachers are too busy to help students	26	6.7
Lack of preparation time	18	4.6
Boring lectures in large groups	16	4.1

Another common objection was that the teachers too often took the viewpoint that their class is the only class that the student was taking. This comment was expressed by forty-three (11.0%) of the students.

Forty-one students (10.5%) felt that rowdy or careless students were ruining the new system for the other students. Basically, they felt that a small minority of students, particularly seniors, were being rebellious and not cooperating to help make the new system a success. Two-thirds of the students who felt this way were underclassmen.

Another thirty-four students (8.7%) felt that a major drawback to the modular scheduling program was poor teachers. The comments indicated a belief that certain teachers were not able to conduct large group sessions appropriately; they were unable to control student discipline; and they were not adequately prepared for class.

Twenty-six students (6.7%) complained about teachers not being available for conferences. Generally, they were not able to schedule appointments during the school day because of schedule conflicts.

Eighteen students (4.6%) argued that the amount of preparation time was insufficient. Fourteen of these students were seniors.

Finally, sixteen students (4.1%) felt that the large group lectures were oftentimes boring. It was hard for them to absorb as much information in a large group session as they could in the smaller groups.

The assistant principals felt that there were two big drawbacks to the modular scheduling program. They cited a minority group of rebellious students who were not giving the new system a chance as one unfortunate drawback. The other drawback in the administrators' minds was one of poor teachers.

The teachers agreed on one basic drawback for the modular system. They felt that some students were taking too many subjects. This was unfair to the students, as they were unable to prepare adequately for all of their classes.

The students had several suggestions for improving the modular scheduling program. A list of their recommendations is given in Table XIV below.

TABLE XIV

STUDENT RECOMMENDATIONS FOR IMPROVING MODULAR SCHEDULING
BY NUMBER AND PER CENT OF TOTAL

Recommendations	Number	Per Cent
More Class time	104	26.7
Less homework	49	12.6
Open campus	41	10.5
Fewer required mods	38	9.7
More small groups	25	6.4
Student lounge	21	5.4
No one mod classes	20	5.1
More passing time	18	4.6
Drop the program	18	4.6
Scheduled study halls for rowdy students	14	3.6
Students can leave after last class	14	3.6
Regular assembly mod scheduled	8	2.0
Better discipline	7	1.8
More free rooms	7	1.8
Longer lunch period	5	1.3

One suggestion stood out. Almost one out of every three students (104) felt that they should be spending more time in a classroom situation. This opinion was expressed by students who were receiving poorer grades, as well as by those who were receiving grades that were improved over other years.

A distant second recommendation was that the teachers should give less homework. This suggestion was offered by 49 students (12.6%).

Forty-one students (10.5%) felt that an open campus should be installed. By this, it was meant that students would be free to leave the campus when they were unscheduled for classes. This privilege would be true for all students, not just seniors.

Thirty-eight students (9.7%) felt that the system could be improved if the students were required to take less mods. In the 1969-1970 school year, students were required to take at least 68 mods of classwork. Since some subjects met for only a few mods each cycle, the students had to schedule extra classes to reach their 68 mod requirement. As was noted, the chief complaint registered by students was that they were taking too many subjects.

Twenty-five students (6.4%) felt that more small group sessions should be scheduled. As was noted earlier, 68% of the students favored the small group learning situation over the large group sessions and the independent study sessions.

Twenty-one students (5.4%) voiced a need for a student lounge. The lounge would be used by the students to relax during their free time if they desired. At the time that the students expressed their opinions, it was already announced that the school would have a student lounge for the next school year. Otherwise, it is possible that more students would have expressed a desire for such a lounge.

Another suggestion offered by 20 students (5.1%) was that no classes should be scheduled for only one mod. They felt that this was a waste of time, and that not much could be accomplished in a 17 minute class session.

Eighteen students (4.6%) felt the need for a longer passing time between classes. They felt that it took more than the allotted three minutes to get from one class to another, especially if the classrooms were distantly apart.

Another eighteen students (4.6%) felt that the best way to improve the modular scheduling program was to simply drop it and return to the traditional system. Fifteen of these respondents were seniors; only three underclassmen felt this way.

Fourteen students (3.6%) felt that it would be a good idea to have a regular supervised study hall for belligerent students. By doing this, they felt that they would be able to use the open study rooms without much disturbance.

Another fourteen students (3.6%) thought it a good idea to dismiss students after their last scheduled class each day. In the 1969-1970 school year, this privilege was granted to only seniors. It was recommended that this option be given to all students.

Other suggestions offered by less than ten students each were that a regular assembly mod be installed into the schedule; that the teachers uniformly handle discipline; that more rooms be available for free study; and that the students be given a longer period in which to eat their lunch.

The administrators reiterated their idea that a student lounge is definitely needed in a modular scheduling program. When students have long periods of free time, it is better for them to have a place to socialize away from students who are trying to study.

The assistant principals also felt that there was a need for more supervision of students. They specifically felt that there should be a supervised study hall for students who are uncooperative.

The business teachers, like the administrators and students alike, also felt a need for a student lounge. Again, it was felt that such a lounge would give the remainder of the school a more quiet atmosphere.

The teachers also frowned on one mod classes. They, too, felt it was difficult to accomplish much in 17 minutes.

The teachers also realized that it was necessary to have more

class time scheduled for every subject. This was felt to be particularly true in the skill areas such as typing, shorthand, and bookkeeping.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

In an effort to improve its program of education, Assumption High School initiated a flexible, modular scheduling program in 1969. The program was installed with the expectations of making better use of the professional competencies of teachers and of providing improved learning experiences for students.

This study was made to test the effect of the new scheduling on a business education program. Results were tabulated from business student opinionnaires and from structured interviews with business teachers and the assistant principals at Assumption High School.

Conclusions

As can be expected, there are several advantages and disadvantages of a modular scheduling program. In regard to students' attitudes, the results indicate that the students generally approve modular scheduling. They would definitely not like to return to the traditional schedule.

Students prefer the small group learning situation over both the large group sessions and the independent study.

If one judges student achievement by his class grades and his class preparation, then the students are performing equally as well under modular scheduling as they do under traditional scheduling.

Modular scheduling brought about a definite increase in student enrollment in the business education area.

All is not perfect with any system. According to the students, a major disadvantage of a flexible schedule is that students tend to become overscheduled with too many subjects. It may be too much to ask a high school student to prepare for nine or ten different subjects.

Some students have difficulty in handling new responsibilities of unscheduled time. Those that are irresponsible create problems for the well-intentioned student.

There are two sides to this coin. The side with the advantages seems to be bigger than the side with the disadvantages.

Recommendations

The author would recommend that Assumption High School maintain its innovative flexible-scheduling program. To get the most out of the new system, it is recommended that (1) the teacher schedule more mods for class time, (2) a student lounge be the center point for relaxation and recreation during one's unscheduled time, and (3) uncooperative students be deprived of most of their unscheduled time by being scheduled into study halls.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

- Austin, David B. , and Noble Gividen. The High School Principal and Staff Develop the Master Schedule. New York: Bureau of Publications, Columbia University, 1960.
- Austin, David B. , Will French, and J. Dan Hull. American High School Administration. New York: Holt, Rinehart and Winston, 1962.
- Bush, Robert N. , and Dwight W. Allen. A New Design for High School Education Assuming a Flexible Schedule. New York: McGraw-Hill Book Company, 1964.
- Douglass, Karl R. Modern Administration of Secondary Schools. 2d ed. Boston: Ginn and Co. , 1963.
- Gall, Morris, and William V. Hicks. Modern Secondary Education. New York: American Book Company, 1964.
- Manlove, Donald D. , and David W. Beggs, III. Flexible Scheduling Using the Indiana Flexible Scheduling Model: Bold New Venture. Bloomington, Indiana: Indiana University Press, 1965.
- Oliva, Peter F. , and Ralph A. Scrafford. Teaching in a Modern Secondary School. Columbus: Charles E. Merrill Books, Inc. , 1965.
- Ovard, Glen F. Administration of the Changing Secondary School. New York: The MacMillan Company, 1966.
- Samford, Clarence D. , and others. Secondary Education. Dubuque: Wm. C. Brown Company, 1963.
- Trump, J. Lloyd, and Delmas F. Miller. Secondary School Curriculum Improvement. Boston: Allyn and Bacon, Inc. , 1968.
- Wiles, Kimball. The Changing Curriculum of the American High School. Englewood Cliffs, N.J.: Prentice-Hall, Inc. , 1963.

Wiley, W. Deane, and Lloyd K. Bishop. The Flexibly Scheduled High School. West Nyack, N.Y.: Parker Publishing Company, Inc., 1968.

Williams, Stanley W. Educational Administration in Secondary Schools. New York: Holt, Rinehart and Winston, 1964.

B. PERIODICALS

Allen, Dwight W. "Elements of Scheduling a Flexible Curriculum," Journal of Secondary Education, November, 1963, pp. 84-91.

_____. "First Steps in Developing a More Flexible Schedule," The Bulletin of the National Association of Secondary School Principals, May, 1962, pp. 34-36.

_____. "The Problem of a Flexible Schedule," Educational Leadership, January, 1961, pp. 205-08.

_____ and D. DeLay. "Stanford's Computer System Gives Scheduling Freedom to Twenty-Six Districts; Stanford School Scheduling System," Nation's Schools, March, 1966, pp. 124-25.

Anderson, G. Ernest, Jr. "How Computers Assign Students," Nation's Schools, February, 1965, p. 80.

_____. "How EDP Schedules Classes," Nation's Schools, April, 1965, p. 80.

_____. "What You Should Know About Computerized Scheduling," Nation's Schools, April, 1966, p. 84.

Barton, A. X. "How Modular Scheduling Works," Business Education World, June, 1967, pp. 10-11.

Bell, John W., and Arthur S. Green. "Time Schedules in the Grades," American School Board Journal, June, 1959, pp. 21-23.

Besvinick, S. L. "Scheduling Problems: How Many? How Long?" Clearing House, March, 1965, pp. 425-27.

- Boyan, Norman J. "The Role of the Principal in Developing Greater Flexibility in High School Education," The Bulletin of the National Association of Secondary School Principals, May, 1962, pp. 36-42.
- Bush, Robert N. "Decision for the Principal: Hand or Computer Scheduling?" The Bulletin of the National Association of Secondary School Principals, April, 1964, pp. 141-46.
- _____. "A Searching Appraisal of New Developments," Journal of Secondary Education, October, 1962, pp. 321-26.
- _____. "New Developments in Flexible Daily Time Schedules," The Bulletin of the National Association of Secondary School Principals, April, 1961, pp. 296-99.
- _____. "Problem of a Flexible Schedule in High School," Educational Leadership, January, 1961, pp. 205-08.
- _____ and Dwight W. Allen. "Decisions for the Principal: Hand or Computer Scheduling," The Bulletin of the National Association of Secondary School Principals, April, 1964, pp. 141-46.
- _____. "Flexible Scheduling," The Bulletin of the National Association of Secondary School Principals, May, 1963, pp. 73-119.
- _____. "Flexible Scheduling for What?" Journal of Secondary Education, October, 1961, pp. 346-53.
- Cawelti, Gordon. "Innovative Practices in High Schools," Nation's Schools, April, 1967, pp. 67-74.
- _____. "Does Innovation Make Any Difference?" Nation's Schools, November, 1968, pp. 60-63.
- Critchfield, Leroy R. "Business Education in a Flexible Scheduled High School," Balance Sheet, December, 1969, pp. 156-59.
- Eirich, W. M., and J. L. Hodge. "Analysis of a Multipurpose Business Education Program," Journal of Business Education, February, 1968, pp. 188-90.
- Empey, D. W. "Student Self Direction, Flexible Scheduling, and Team Teaching," The Bulletin of the National Association of Secondary School Principals, February, 1963, pp. 118-24.

- Glatthorn, A. A., and J. E. Ferderbar. "Independent Study for All Students," Phi Delta Kappan, March, 1966, pp. 379-82.
- Griffin, W. Maxwell. "Schools of the Future--Now," The Bulletin of the National Association of Secondary School Principals, May, 1962, pp. 267-72.
- Holt, Donna. "Individualized Business Courses," School and Community, April, 1969, pp. 24+.
- Howard, Eugene R. "Modular Scheduling in the Senior High School, a Means of Improving Instruction," High School Journal, January, 1965, pp. 282-88.
- Hofmann, Elayne B. "Brookhurst Plan--An Experiment in Flexible Scheduling," NEA Journal, September, 1965, pp. 50-52.
- Kenny, J. B. "What Can Computer Scheduling Programs Do?" Nation's Schools, November, 1968, pp. 64-66.
- Masterson, Bert, and Wally Clark. "A Flexible Approach to Office Education--Modular Scheduling!" Balance Sheet, October, 1969, pp. 68-70.
- _____. "Modular System at Work," Balance Sheet, January, 1969, pp. 214-15+.
- Rich, Dorothy. "Schools Without Grading Systems," The Des Moines Register, July 18, 1969, p. 11.
- Robb, H. H. "Flexibility? Try a Module," The Clearing House, May, 1962, p. 550.
- Shanus, R., and others. "Modular Scheduling: How Much Fact, How Much Illusion?" Business Education World, October, 1968, pp. 9-10+.
- Silver, A. "Rotation Plan of Team Teaching," Journal of Business Education, October, 1968, pp. 23-24.
- Tate, D. J., and others. "Flexible, Multipurpose Curriculum for High School Business Education," Journal of Business Education, January, 1968, pp. 154-56.
- Tonne, Herbert A. "Innovation as the Solution," Journal of Business Education, January, 1967, pp. 136-37.

Trump, J. Lloyd. "Flexible Scheduling: Fad or Fundamental?" Music Educators' Journal, November, 1965, pp. 51-53.

Wallace, Charles E. "Flexible Scheduling for the School Year," Journal of Secondary Education, March, 1962, pp. 132-35.

Yerby, Robert M. "Flexible Scheduling: Some Critical Questions and an Experiment," Journal of Secondary Education, March, 1962, pp. 197-200.

C. OTHER SOURCES

Allen, Dwight W. "Innovations in Education: Modular Scheduling," Stanford University Experimental School. A series of films that were shown to the faculty of Assumption High School.

Maxey, James. "Evaluation of the Outcomes of Modular Scheduling." Paper read at the annual membership meeting of the Iowa Center for Research in School Administration, December, 1968, Iowa City, Iowa.

APPENDIX

BUSINESS EDUCATION-MODULAR SCHEDULING OPINIONNAIRE
ASSUMPTION HIGH SCHOOL
MAY, 1970

The following questions are designed to give helpful information on the effect of modular scheduling on Assumption's Business Education program. The results will be of help in giving Assumption's program a better direction to follow.

For sorting purposes, circle your sex, grade level, and a "YES" or a "NO" to indicate whether or not you had been enrolled in a business course at Assumption prior to this year.

MALE FEMALE 9 10 11 12 YES NO

For each question below, circle the letter for the response that would best express your opinion.

1. To what extent are you making an adjustment after one year of modular scheduling?
 - A. Very good adjustment
 - B. Fair adjustment
 - C. Just beginning to adjust
 - D. Unable to adjust

2. To what extent do you feel your teachers have adjusted to modular scheduling?
 - A. Very good adjustment
 - B. Fair adjustment
 - C. Just beginning to adjust
 - D. Unable to adjust

3. To what extent do you have adequate contact time with your teachers?
 - A. Much more than under traditional system
 - B. Slightly more than under traditional system
 - C. About the same
 - D. Slightly less than under traditional system
 - E. Much less than under traditional system

4. How would you rate your preparation time?
 - A. Much more than adequate
 - B. More than adequate
 - C. Adequate
 - D. Less than adequate
 - E. Much less than adequate
5. How are you using your free, unscheduled time?
 - A. Wisely, for the most part
 - B. Generally in a good academic way
 - C. Sometimes wisely; sometimes wastefully
 - D. Usually Wastefully
6. How do you think the open rooms should be handled?
 - A. They should be completely quiet, but unsupervised
 - B. They should be completely quiet and supervised
 - C. They should be semi-quiet supervised study areas
 - D. They should be semi-quiet unsupervised study areas
 - E. They should be completely unsupervised
7. How often do you use the business resource area?
 - A. Frequently do most of business homework there
 - B. Occasionally to do only particular business assignments
 - C. Very seldom
 - D. Never
8. In comparison to previous years, how well are you prepared for your classes?
 - A. Much better prepared
 - B. Better prepared
 - C. Equally prepared
 - D. Less prepared
 - E. Much less prepared

9. In comparison to previous years, how hard have you had to work in school?
- A. Much harder
 - B. A little harder
 - C. About the same
 - D. Not quite as hard as before
 - E. Considerably less harder
10. Which type of learning situation do you prefer?
- A. Large group lectures
 - B. Small group classes
 - C. Independent study
11. How has the flexibility of our modular scheduling program enabled you to enroll in business courses?
- A. Able to take more business courses now
 - B. Can take no more business courses than originally planned
 - C. Must take fewer business courses now
12. How are your overall grades this year?
- A. Much higher than before
 - B. Slightly higher than before
 - C. About the same
 - D. Slightly lower than before
 - E. Much lower than before
13. To what extent are you satisfied with the decision of last year to become involved in a modular scheduling program?
- A. Completely satisfied
 - B. Generally satisfied
 - C. Uncertain
 - D. Generally dissatisfied
 - E. Completely dissatisfied

14. If Assumption was to announce that it was returning to the traditional schedule next year, what would most probably be your reaction?
 - A. One of disappointment
 - B. No particular feelings one way or the other
 - C. One of joy
15. What do you consider to be the major drawbacks, if any, of the modular scheduling program?
16. List any suggestions you have for the improvement of the modular scheduling program.